
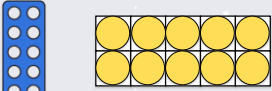



To be able to describe how many different ways two groups of objects can be arranged




**Starter:**  
How many different ways can you partition 10?






Use mathematical equipment to support your response.

To be able to describe how many different ways two groups of objects can be arranged




**Activity 1:**  
Ruth has four hats and three scarves.  
How many different hat/scarf combinations can she make?






hat	scarf	hat	scarf
red	pink		
red	green		
red	black		

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**Activity 2:**  
Ahmed has three letter cards and five digit cards.  
How many different letter/digit combinations can he make?


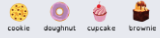



letter	digit	letter	digit
A	1		
A	2		
A	3		
A			
A			

To be able to describe how many different ways two groups of objects can be arranged




**Activity 3:**  
At snack time, Yasmin chooses one fruit and one pastry.



- What might she have chosen?
- How many possible combinations are there in total?
- Express the possibilities as a multiplication sentence:  

$$\_ \times \_ = \_$$
- How many of the possibilities contain a doughnut?

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**Activity 4:**  
Jamal has some hats and he has some scarves.  
Altogether, he can make 24 hat/scarf combinations.





How many hats might Jamal have? How many scarves might he have?  
Can you think of multiple possibilities?  
Explain your answer.



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**Evaluation**



If an ice cream parlour has four types of ice cream and four types of sauce, there are twelve ice cream/sauce combinations.

Do you agree with Astrobee's statement?  
Explain your answer.